

USGS: Organizing, Preserving, and Communicating Knowledge of the Natural World

Biological resources are the basis of much of this Nation's prosperity. The wise stewardship of these riches affects current and future generations and, therefore, must be rooted in decisions based on the best information available.

ISSUE

For decades, America has invested in developing knowledge about this Nation's plants, animals, and ecosystems. While much useful knowledge has been gained, the public's return on its investment would have been higher if modern information tools and techniques had always been available. In addition, decision makers at all levels of the public and private sectors would not be forced, as they often are today, to make critical environmental judgments without broad benefit of the existing body of information because:

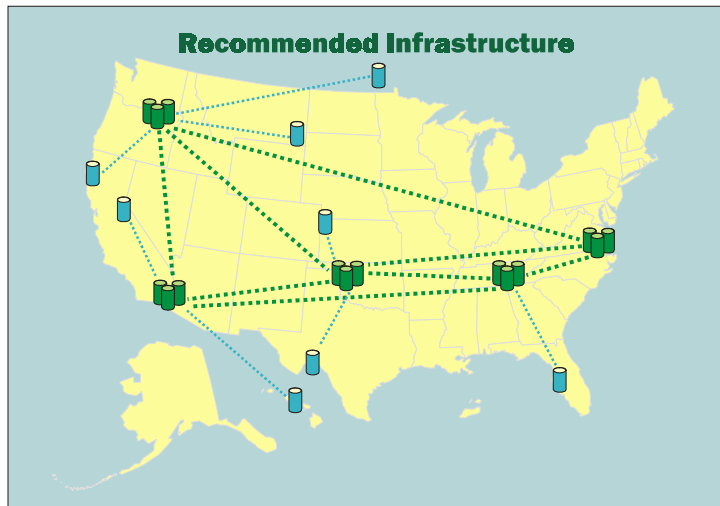
- Integrating information from different sources may not be possible because that information was collected according to different guidelines.
- Useful information on resources, such as museum biological specimens, may be available only on paper and not in a computerized format. Thus, this type of information is not easily accessible to anyone outside the institution where it is housed.
- Many individuals and agencies are not aware that important information sources even exist. Unwittingly, substantial effort is still being devoted to information *re*-collection.

WHY SHOULD WE CARE?

Biological resources are the basis of much of this Nation's prosperity. These riches are worthy of careful consideration before actions are taken that affect their future. To insure that decisions made about our resources are well-informed, managers must have, at their fingertips, all of the information that has been gathered about the resource and related issues. It is critical that the information be available when it is needed, and in a format that is meaningful to the purpose at hand.

ANSWERING THE NEED

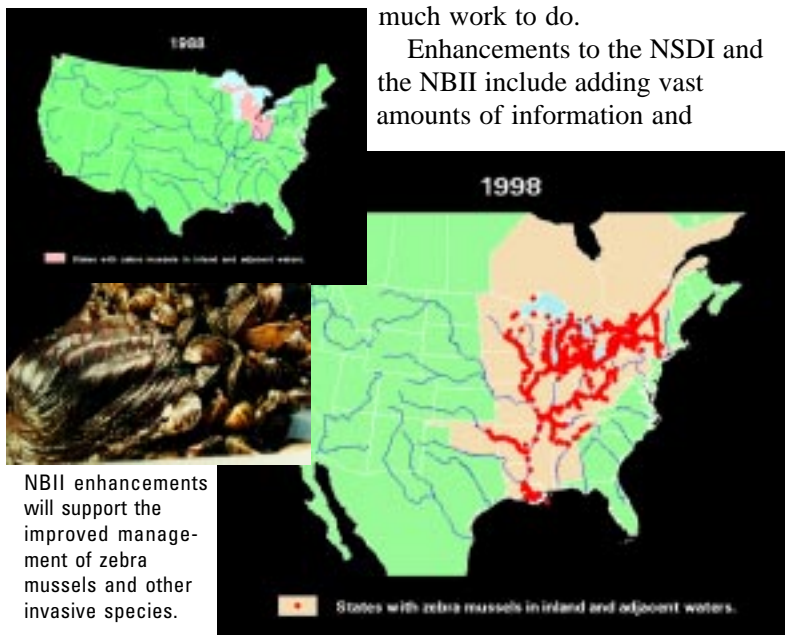
Two USGS programs — the National Spatial Data



The new NBII infrastructure will be based at several regional sites, with two initial locations in the Appalachian region and the Pacific Northwest. Improved NBII capabilities will be made possible by innovations in hardware, software, and telecommunications.

Infrastructure (NSDI)-Community/Federal Information Partnerships and the National Biological Information Infrastructure (NBII) — are making important strides in reducing duplication of effort as well as streamlining information access, storage, and retrieval. But there is still much work to do.

Enhancements to the NSDI and the NBII include adding vast amounts of information and



NBII enhancements will support the improved management of zebra mussels and other invasive species.

strengthening the network through which it is available. This will secure access to a broad storehouse of information for diverse users including scientists, planners, industry and government decision makers, teachers and students, and other private citizens. Using this information, they can better determine effective courses of action concerning our natural resources.

As part of the initiative to build and foster the NSDI and the NBII, the USGS has requested an increase in the FY 2000 budget of \$10 million and \$1 million, respectively. Of the \$10 million increase for the NSDI, \$3 million will fund biological information partnership activities with state, local, and tribal governments, other Federal agencies, nongovernment organizations, and academic and private institutions. These groups will use the funds to computerize the information they have collected. USGS will apply \$1

million to make its biological information available to internet users worldwide.

For the NBII, funding will be used to build a powerful, state-of-the-art information system that will help users find and apply the biological data and information they need. Many of these innovations were proposed in the 1998 publication *Teaming with Life: Investing in Science to Understand and Use America's Living Capital*. In this document, a distinguished panel of biologists and information scientists has recommended moving forward to a "next generation NBII" with intensified capabilities.

In short, through these initiatives for the NSDI and the NBII, the USGS will provide enhanced information technologies and expertise needed to support the thoughtful stewardship of our Nation's natural resources today — and tomorrow.

Here are a few examples of information available through the NBII today

FrogWeb <<http://www.frogweb.gov>> offers a broad range of information on amphibians, including insights on the important role the public can play in frog research.

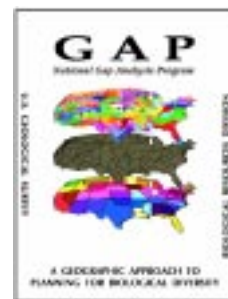


The North American Breeding Bird Survey shows population trends and distributions for 400 species of birds over the last 30 years.

Baltimore Oriole: *Icterus galbula*
BBS Trend Map 1966-1996



The Integrated Taxonomic Information System is the first comprehensive, standardized reference of scientific names of the plants and animals of North America and surrounding oceans. In April 1998, the six Federal agencies partnering in this program were co-recipients of a Hammer Award.



The Gap Analysis Program maps biodiversity in relation to land management status in more than 40 states.

For More Information

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